

## A Copernican turn in Banking Union urgently needed

Thomas Mayer

No. 297, July 2013

At every meeting of central bankers, policy-makers and economists, there seems to be agreement that creation of a 'Banking Union' is essential for the survival of the euro. Yet, progress in building this union has been painfully slow. The Single Supervisory Mechanism (SSM) may not be ready until the middle of next year; the Single Resolution Mechanism (SRM) may end up as a complicated mixture between bail-in and bail-out instruments, funded at the national and euro-area levels; and common deposit insurance has been postponed into the indefinite future. What is making the establishment of Banking Union so difficult are the protracted fights over which government will be the payer of last resort when banks fail because of bad loans made in the past.<sup>1</sup>

---

<sup>1</sup> The recent agreement by the Eurogroup highlights the dilemma: The European Stability Mechanism (ESM) can acquire stakes in banks in difficulties, but only up to a limit of €60 billion and with participation of the country in which the particular problem banks reside. Creditors other than holders of insured deposits are to be 'bailed in' as a rule, but many exceptions to the rule are possible. Moreover, the European Commission's proposal for a bank restructuring and resolution regime is highly controversial and resisted by German officials and bankers who fear a transfer of national sovereignty to the Commission that is not backed by the EU Treaty.

If we continue along the present line, it does not seem likely that we shall ever reach full Banking Union. Therefore we need to learn from Copernicus who could not make sense of the movement of planets as long as he assumed that the sun moved around the earth. But once he assumed the opposite, everything fell into place for him. So, instead of trying to move from common bank supervision, over to bank resolution and then on to deposit insurance, let's go backwards and start with deposit insurance, move from there to resolution and end with supervision (see Table A1 in the Appendix).

### Step 1. A 100% reserve requirement for safe deposits

We start by defining the risk-free asset for a euro-area resident with short-term and long-term financial liabilities (e.g. living expenses and nominal debt): This is the asset that can be converted into legal tender at face value at any time and under any circumstance. The concept of legal tender is very important in a fiat money system, in which money derives its value from government regulation or law, because it ensures that we can settle debt with almost worthless paper or electronic bits. In a fiat money system the only legal tender is by definition central bank money. Hence, an asset is risk-free if it can be converted into central bank money at any time. It is easy to see that only few assets would qualify

Thomas Mayer is Senior Fellow at the Centre for Financial Studies at Goethe University Frankfurt and Senior Advisor to Deutsche Bank. This paper is an updated and expanded version of CEPS Policy Brief No. 290, published in May 2013. He wishes to thank Daniel Gros for valuable comments on an earlier draft.

CEPS Policy Briefs present concise, policy-oriented analyses of topical issues in European affairs, with the aim of interjecting the views of CEPS researchers and associates into the policy-making process in a timely fashion. Unless otherwise indicated, the views expressed are attributable only to the author in a personal capacity and not to any institution with which he is associated.

as risk-free. Most importantly, the debt of governments that do not control the issuance of legal tender, as is the case in EMU, or deposits of banks that are backed by credit to entities that also do not control the issuance of legal tender, are not risk-free. All these assets are risky because the debtor may not be able to convert them into legal tender at any time and under all circumstances.

Hence, in EMU, where governments have no access to the money printing press of the European Central Bank (ECB), the only risk-free asset is cash issued by the central bank and deposits that are fully backed by central bank reserves with the central bank. It thus follows that we need to establish safe bank deposits as deposits that are fully backed by banks' holdings of central bank reserves. In other words, we can effectively insure deposits by introducing a 100% reserve requirement for this type of deposits. No industry or state deposit insurance scheme is required. A simple 100% reserve requirement is sufficient.<sup>2</sup>

But would a deposit insurance scheme based on a 100% reserve requirement be at all possible in our present system? The answer, of course, is yes: To back 'insured' deposits created earlier by fractional reserve banking, banks could borrow central bank reserves in the necessary amount and keep them on deposit with the central bank. The cost of these safe deposits for the banks would be determined by the difference between the lending rate for central bank reserves and the deposit rate for central bank money. The cost for the bank customer would be determined by the net cost of central bank funds for the banks and the banks' operating costs for the insured deposits. The benefit for the customer would be to have a safe asset other than only central bank

notes, and the ability to use this asset to make non-cash payments.

A quantitative limit for safe deposits would not be necessary as the central bank could adjust the supply of reserves to the demand for safe deposits. But the central bank could influence the demand for safe deposits by changing the variable costs, which are given by the difference between the cost of central bank reserves and the rate that the central bank pays on deposits. This could be used for stabilisation policy: By influencing the demand for safe deposits relative to other deposits, the ECB would also influence credit extension by the banks.

Assume that customers switch from investor deposits to safe deposits. If the ECB kept the supply of central bank reserves constant, banks would need to reduce credit to free funds for deposit with the ECB as cover for the additional safe deposits. Credit to the non-bank sector would go down, and the credit multiplier, defined as credit relative to central bank money, would fall. Alternatively, if the ECB wanted to accommodate the switch and keep credit to the non-bank sector constant, they could increase the supply by central bank reserves to meet the additional demand. Still the credit multiplier would decline, albeit by less than before, because the central bank money stock would increase. Finally, if the ECB wanted the credit multiplier to remain constant, they could raise the alternative costs of holding safe deposits by lowering the deposit rate. The reduction of the deposit rate needed to achieve the target level of safe deposits could be determined in a reverse refinancing operation, where banks submit bids for the deposit rate they are willing to accept (or pay when the deposit rate is negative).<sup>3</sup>

---

<sup>2</sup> The idea of 100% reserve coverage of deposits is of course not new. As Huerta de Soto has pointed out, it dates back to the school of Salamanca in the 16<sup>th</sup> century, was taken up in the UK Bank Charter Act of 1844 and is advocated today by followers of the Austrian School of Economics and others (see Jesus Huerta de Soto, "Money, Bank Credit, and Economic Cycles", Ludwig von Mises Institute, Auburn AL, 2012).

---

<sup>3</sup> Banks in Germany and certain other euro area countries today already hold large amounts of central bank reserves. However, these reserve holdings are motivated by the banks' reluctance to lend to other banks in other euro area countries and are not earmarked to back deposits.

## Step 2. A hierarchy of loss-absorbing bank liabilities

Once we have established reserve-backed deposits as safe assets, all other bank liabilities would of course be risky. We can now define a hierarchy of loss absorption in a bank resolution regime. The first loss would of course be borne by the equity tranche on the liability side of banks' balance sheets. After having set aside assets pledged to cover secured debt, the second and third losses would be borne by junior and senior unsecured bank debt. The fourth and last loss would accrue to deposits uncovered by central bank reserves. When all bank liabilities except deposits fully covered by central bank reserves contribute to cover losses on bank assets, taxpayer-funded bank bailouts would become significantly less likely (and will eventually become unnecessary). As long as banks engage in maturity transformation, systemic liquidity crises remain possible and a lender-of-last resort necessary.

However, the risk of a liquidity crisis could be reduced if the scope for maturity transformation would be limited in the regulatory framework. Moreover, when the public fully understands the risk associated with an exposure to banks beyond the reserve-backed safe deposit, it would be up to banks to reassure bank equity investors and creditors that their assets are being managed in a way that makes illiquidity and losses become unlikely.

## Step 3. Divest banks from governments by revised regulations for government debt

To be able to fund their assets at reasonable costs, banks would need to have a comfortable equity cushion and a well-diversified and reasonably liquid portfolio of assets. Most importantly, they would have to reduce their exposure to government debt to a level consistent with this debt being subject to default risk. Hence, in the new regulatory regime, government debt would have to be backed by equity at least in part (with the rest backed by other loss-absorbing bank liabilities), and it would have to be subject to limits for single credit exposure. To allow banks' divestment from government debt, the European Central Bank could buy in a one-off operation the

government bonds that banks have pledged to the central bank as collateral for obtaining central bank credit, and place them in a special account that will be wound down over time.

As a result of this operation, risky claims of the banks on governments would be replaced by risk-free claims of the banks on the ECB or, in other words, by central bank reserves. The ECB would of course want to reduce its exposure to government debt over time.

Since it is very doubtful that all highly indebted euro-area countries could repay their debt, governments and the ECB could agree that all income from seigniorage would be used to pay down the government debt held by the ECB in the special account. Since the present discounted value of seigniorage can be very large, reaching several trillion euros in the case of the euro area, depending on interest rates on central bank credit and the growth rate of non-interest-bearing central bank money, it seems likely that this would be sufficient to eventually retire the government debt acquired by the ECB from the banks. Alternatively, since a significant part of the government bonds acquired by the ECB from banks would have fairly short maturities, the position of the ECB could be reduced by simply letting the bonds run down.

The arrangement outlined here has some resemblance to the debt redemption fund proposed by the German Council of Economic Experts. However, an important difference is that in the arrangement proposed above, the ECB would withhold revenue to pay down the debt and would not have to rely on governments to allocate revenue for this purpose.

Part of the reserves obtained by selling government bond holdings to the ECB could be used initially by the banks to back safe deposits. The rest could be released by the ECB into the banking system and the economy at large by setting a rate for central bank deposits below the risk-adjusted bank lending rates. With their debt now subject to default risk, highly indebted governments might encounter difficulties accessing the market at reasonable costs to roll over expiring debt. But market access could be improved if the ECB agreed to assume the status of a junior creditor for the government bonds

they have acquired from banks in case of a debt restructuring.

Like the orderly pay down of the debt, the costs for such a restructuring could be covered by future seigniorage income. This would represent a partial mutualisation of public debt, but because of its limited character it would probably be acceptable for countries with stronger balance sheets.

### Balance sheet effects of safe deposits

Table A2 in the Appendix shows the structure of banks' balance sheets after the introduction of safe deposits. Abstracting from assets earmarked for covered bonds, banks would have central bank reserves and credit on the asset side of the balance sheet, as before. However, central bank reserves would be tied to cover safe deposits on the liability side of the balance sheet. All other liabilities would participate in loss absorption in a clearly defined hierarchy, with equity providing the first layer and investor deposits (not covered to 100% by central bank reserves) the last. Given our definition of a safe deposit, it corresponds to what are at present called "sight deposits". In April 2013, sight deposits in the euro area amounted to €4.4 trillion, representing about 38% of total deposits or 44% of GDP.

Since customers would probably not choose to have all sight deposits in the form of safe deposits, this would represent an upper boundary to the level of safe deposits. In April 2013, banks held €556 billion as reserves with the Eurosystem (€273 billion of which counted as minimum reserves). Hence, the introduction of safe deposits would substantially increase reserve holdings and the Eurosystem's balance sheet (presently only €2.5 trillion). But this would only change the mix between inside and outside money and not affect the overall size of the balance sheet of the monetary and financial system.

Table A3 in the Appendix shows the structure of the balance sheet of the ECB. As can be seen from this table together with Table A2, safe deposits, like bank notes in circulation, represent a direct liability of the ECB to the non-banking sector. Against this stands the 'good will' on the asset side of the central bank's balance sheet,

which reflects the trust invested by the public in money as a means of exchange and store of value.<sup>4</sup>

As explained above, the central bank can influence the mix between safe deposits and investor deposits by determining the alternative costs of safe deposits. Since investor deposits fund bank credit, this allows the central bank to influence credit extension by the banking system. Banks can of course still engage in maturity transformation by funding longer-term credit with rolling short-term investor deposits. But holders of investor deposits would be exposed not only to credit but also to liquidity risks associated with maturity transformation. Since they would demand a risk premium as compensation, there would be an economic limit to maturity transformation.

In a growing economy, the central bank may not only want to influence the mix between safe and investor deposits but also the size of the balance sheet of the banking sector. It can do so by writing up 'good will' in its balance sheet and crediting safe deposits with this amount.<sup>5</sup> Thus, new central bank money would come into existence in a neutral way and would not benefit any sector in particular (as would be the case if the central bank would create new money by

---

<sup>4</sup> At first glance, the backing of money by 'good will' in the central bank's balance sheet may look unsound. Proponents of 100% reserve backing of deposits have therefore suggested that the central bank issue money against government bonds when it wants to increase the central bank money stock. But this only camouflages the lack of a material cover of money in a fiat money system – and it may tempt the government to fund its expenses through the money printing press. The fact is that the only cover of money in a fiat money system is people's trust in money, and this is most honestly accounted for by 'good will' in the central bank's balance sheet.

<sup>5</sup> A write-up of 'good will' could be triggered by an increase in the demand for money as a result of an increase in potential GDP. In this case, the price level would fall if no new money was issued. As long as price rigidities exist, this may not seem desirable.



buying newly issued government bonds, as suggested by some).<sup>6</sup>

### A more level playing field

The proposed structure for Banking Union would of course change the way in which banks operate and governments fund themselves. Banks would no longer extend credit and create book money at will. Rather, they would assume the dual role of 1) safe keeper of the risk-free assets, i.e. central bank money, for depositor-savers, and 2) intermediary of funds between investor-savers and entrepreneurs.

It is possible that bank lending rates would increase, but if they do, then only because savers realise that in a fractional reserve banking system bank deposits carry credit risk, unless they are fully backed by banks' holdings of central bank reserves. In fact, the widespread misconception that bank deposits in our present system of fractional reserve banking are completely safe and can be converted into central bank money at any time and in all circumstances represents a subsidy to bank lending rates (and bank profits).

Governments could no longer rely on banks to fund their debt and would have to obtain funding from the capital markets. Borrowing costs could also increase for them as they would no longer be regarded as offering risk-free assets and could no longer benefit from preferential treatment on banks' balance sheets in the form of zero-risk weighting for the calculation of regulatory capital requirements and exemption from single-credit exposure limits. Again, such an increase in borrowing costs would represent the end of a subsidy to government borrowing as a result of special regulatory treatment.

### Conclusion

To sum up, Banking Union could be built in three steps. In the first step, deposit insurance could be introduced in the euro area by requiring banks to fully back safe deposits with central bank reserves. This would be the only safe asset in EMU, where, as already noted, governments have no command over the money printing press of the central bank. All other bank liabilities would participate in covering losses on the asset side of banks' balance sheets in a hierarchical order established by the common bank resolution regime in the second step. To help banks divest from government bonds, the ECB could buy these bonds from them, replacing risky claims of banks on governments by risk-free claims of banks on the ECB in the third step. Governments and the ECB could agree to use future seigniorage income to pay down the government debt held by the ECB.

---

<sup>6</sup> Economists of the Austrian school have pointed out that the creation of money via bank credit or government spending benefits those close to the process of money creation and puts at a disadvantage those far away from it. The latter will not obtain new money but may suffer from price increases triggered by the money injection.

## Appendix

Table A1. The Copernican turn for Banking Union

Present approach	Proposed approach
<b>Step 1</b> Establish SSM on the basis of the regulatory framework mapped out in CRDIV.*	<b>Step 1</b> Establish deposit insurance by requiring safe deposits to be backed 100% by banks' holding of reserves with the central bank.
<b>Step 2</b> Establish SRM backed by a government-funded restructuring and resolution fund.	<b>Step 2</b> Establish SRM with hierarchical loss absorption of all bank liabilities except safe deposits. Resolution fund would operate only in the transition to new regime, and then would no longer be required.
<b>Step 3</b> Keep deposit insurance under national authority.	<b>Step 3</b> Establish SSM on the basis of CRDIV, modified to introduce positive risk weights and single credit exposure limits for government debt. The ECB would help divest banks from government bonds and redeem the ECB's acquired government bond portfolio by withholding seigniorage income over time.

\* CRDIV is the legislative package of proposals adopted by the European Commission on 20 July 2011 to replace the current Capital Requirements Directives and strengthen the regulation of the banking sector.

Table A2. The structure of bank balance sheets in the new regime

Assets	Liabilities
Central bank reserves	Safe deposits
Ring-fenced assets	Covered bonds
Other assets	Investor-deposits* Senior debt* Junior debt* Equity*

\* Participating in losses in ascending order.

Table A3. The structure of the central bank's balance sheet in the new regime

Assets	Liabilities
Good will	Deposits of commercial bank reserves to cover safe deposits
Other assets	Other liabilities, reserves, and capital